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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,677	01/25/2002	Malcolm David Smith	1171/40038/110	8915

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EXAMINER

MACK, COREY D

ART UNIT PAPER NUMBER

2855

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/057,677	<b>Applicant(s)</b> SMITH ET AL.	
	<b>Examiner</b> Corey D. Mack	<b>Art Unit</b> 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 19 is/are rejected.
- 7) ☒ Claim(s) 8-18 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in New Zealand on January 31, 2001. It is noted, however, that applicant has not filed a certified copy of the NZ 509656 application as required by 35 U.S.C. 119(b).

### *Claim Objections*

2. Claims 8-18 and 20 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 8-18 and 20 have not been further treated on the merits.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US 5,163,423) in view of Koch (US 6,718,973).

A. With respect to Claim 1, Suzuki discloses a sensor housing comprising: an internal cavity 16 within the housing; a first aperture 32 in the housing in fluid communication with the hollow interior, in use accepting the flow of gases, then flowing into the internal cavity; a second aperture 17 in the housing in fluid communication with the internal cavity, in use the flow of gases flowing from the internal cavity through the second aperture and the second aperture being

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at least partially higher than the first aperture; and, a sensor 11 mounting disposed with the housing between the first aperture and the second aperture, adapted such that in use a sensor located in the sensor mounting being at least partially within the path of the flow gases (column 3, line 10 – column 4, line 22). However, Suzuki does not disclose a condensation deflector on or adjacent the sensor housing. Koch discloses a respiratory humidifier comprising a condensation deflector 13 within the internal cavity on or adjacent to sensor 12 so as to direct any condensation 15 that forms within the internal cavity 1 at least partially away from the sensor (column 4, lines 23-30). Therefore, at the time the invention was made, it would have been obvious to one of ordinary skill in the art to include in Suzuki a condensation deflector in order to direct any condensation that forms with the internal cavity at least partially away from the sensor.

B. With respect to Claim 3, Suzuki discloses that the humidity RH, Abs. H of the flow of gas is calculated and displayed (column 4, lines 9-16).

C. With respect o Claim 4, Suzuki discloses that the temperature of the flow of gas is calculated and displayed (column 4, lines 9-16).

D. With respect to Claim 5, Koch discloses that the housing is generally elbow-shaped (See Fig. 1).

E. With respect to Claims 6 and 7, Koch discloses that the elbow-shape comprises a first passage 3 with a first end at a first aperture and a second end intersecting with a first end of a second passage 8 having a second end at the second aperture, the first passageway being at an angle of 30 degrees to the second passageway (See Fig. 1).

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F. With respect to Claim 19, Suzuki discloses that the second aperture 17 is designed to connect to a conduit 33 to convey the flow of gases to a patient, the conduit preferably including heating means 10 to reduce condensation within the conduit (column 1, lines 40-56; column 3, lines 43-58).

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US 5,163,423) in view of Koch (US 6,718,973) as applied to claims 1-7 and 19 above, and further in view of McComb (US 5,349,946).

A. With respect to Claim 2, Suzuki, as modified by Koch, discloses the claimed invention, except they do not explicitly disclose measuring the flow rate of the flow of gases. McComb discloses a gas humidification system comprising a flow meter 32 that indicates the rate of flow of the gas and controls a pulse valve so that the amount of water delivered to humidifier 24 is only the amount that will produce a desired humidity level of the gas delivered to a patient (column 3, line 37 – column 15; column 5, lines 24-47). Therefore, at the time the invention was made, it would have been within the knowledge of one of ordinary skill in the art to include in Suzuki, as modified by Koch, a flow meter in order to maintain a desired humidity level of the gas delivered to a patient.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey D. Mack whose telephone number is (571) 272-2181. The examiner can normally be reached on M-F, 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Corey D. Mack, Esq.  
Patent Examiner  
Art Unit 2855

May 18, 2005



**HARSHAD PATEL**  
**PRIMARY EXAMINER**